



10-15-02

1631
\$IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Engelhardt et al.

COPY

Serial No. 08/486,069

Group Art Unit: 1631

Filed: June 7, 1995

Examiner: Ardin H. Marschel, Ph.D.

Title: NUCLEIC ACID SEQUENCING PROCESSES USING MODIFIED NUCLEOTIDES OR LABELED NUCLEOTIDE ANALOGS, AND OTHER PROCESSES FOR NUCLEIC ACID DETECTION AND CHROMOSOMAL CHARACTERIZATION USING SUCH MODIFIED OR LABELED NUCLEOTIDES OR NUCLEOTIDE ANALOGS

FILED VIA EXPRESS MAIL**RECEIVED**

Director of Patents and Trademarks
Washington, D. C. 20231

OCT 17 2002

TECH CENTER 1600/2900

Sir:

Transmitted herewith is a Supplemental Amendment To Applicants' September 12, 2002 Amendment Under 37 C.F.R. §1.115 in the above-identified patent application.

The fee has been calculated as shown below:

	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE
Total	2012	Minus	2006	= 6	X \$ 18	\$ 108
Indep	27	Minus	26	= 1	X \$ 84	\$ 84
()	First Presentation of Multiple Dependent Claims				+\$260	\$ 0
	TOTAL ADDITIONAL FEE					\$ 192

(X) Charge Deposit Account No. 05-1135 in the amount of \$192.

() A check in the amount of \$ _____ is attached.

Enz-5(D8)(C2)

Dean L. Engelhardt, et al.

Serial No.: 08/486,069

Filed: June 7, 1995

Page 2 [Transmittal Accompanying Supplemental Amendment to Applicants'
September 12, 2002 Amendment Under 37 C.F.R. §1.115
-- October 11, 2002]

- (X) The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or to credit any overpayment to Deposit Account No. 05-1135: any filing fees under 37 C.F.R. §1.16 for the presentation of extra claims and any patent application processing fees under 37 C.F.R. §1.17.

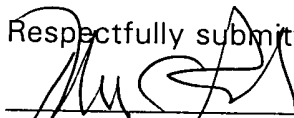
Copies are being provided in triplicate.

Also enclosed: Seventh Information Disclosure Statement.

October 11, 2002

Date

Respectfully submitted,

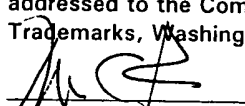

Ronald C. Fedus
Registration No. 32,567
Attorney for Applicant(s)

RECEIVED

OCT 17 2002

TECH CENTER 1600/2900

ENZO LIFE SCIENCES, INC.
(formerly Enzo Diagnostics, Inc.)
c/o Enzo Biochem, Inc.
527 Madison Avenue (9th Fl.)
New York, New York 10022
Tel. (212) 583-0100
Attorney's Docket No.: Enz-5(D8)(C2)

EXPRESS MAIL CERTIFICATE	
"Express Mail" Label No.	<u>EV115518443US</u>
Deposit Date	<u>October 11, 2002</u>
I hereby certify that this paper and the attachments herein are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington DC 20231.	
 Ronald C. Fedus Reg. No. 32,567	<u>OCT 11 2002</u> Date

Enz-5(D8)(C2)



10-15-02

1631
A**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Engelhardt et al.

Serial No. 08/486,069

Group Art Unit: 1631

Filed: June 7, 1995

Examiner: Ardin H. Marschel, Ph.D.

Title: NUCLEIC ACID SEQUENCING PROCESSES USING MODIFIED NUCLEOTIDES OR LABELED NUCLEOTIDE ANALOGS, AND OTHER PROCESSES FOR NUCLEIC ACID DETECTION AND CHROMOSOMAL CHARACTERIZATION USING SUCH MODIFIED OR LABELED NUCLEOTIDES OR NUCLEOTIDE ANALOGS

FILED VIA EXPRESS MAIL

Director of Patents and Trademarks
Washington, D. C. 20231

RECEIVED

OCT 17 2002

TECH CENTER 1600/2900

Sir:

Transmitted herewith is a Supplemental Amendment To Applicants' September 12, 2002 Amendment Under 37 C.F.R. §1.115 in the above-identified patent application.

The fee has been calculated as shown below:

	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE
Total	2012	Minus	2006	= 6	X \$ 18	\$ 108
Indep	27	Minus	26	= 1	X \$ 84	\$ 84
()	First Presentation of Multiple Dependent Claims				+ \$260	\$ 0
	TOTAL ADDITIONAL FEE					\$ 192

(X) Charge Deposit Account No. 05-1135 in the amount of \$192.

() A check in the amount of \$ _____ is attached.

Enz-5(D8)(C2)

Dean L. Engelhardt, et al.

Serial No.: 08/486,069

Filed: June 7, 1995

Page 2 [Transmittal Accompanying Supplemental Amendment to Applicants'
September 12, 2002 Amendment Under 37 C.F.R. §1.115
-- October 11, 2002]

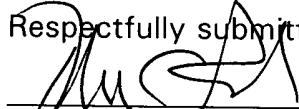
- (X) The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or to credit any overpayment to Deposit Account No. 05-1135: any filing fees under 37 C.F.R. §1.16 for the presentation of extra claims and any patent application processing fees under 37 C.F.R. §1.17.

Copies are being provided in triplicate.

Also enclosed: Seventh Information Disclosure Statement.

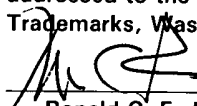
October 11, 2002
Date

Respectfully submitted,



Ronald C. Fedus
Registration No. 32,567
Attorney for Applicant(s)

ENZO LIFE SCIENCES, INC.
(formerly Enzo Diagnostics, Inc.)
c/o Enzo Biochem, Inc.
527 Madison Avenue (9th Fl.)
New York, New York 10022
Tel. (212) 583-0100
Attorney's Docket No.: Enz-5(D8)(C2)

EXPRESS MAIL CERTIFICATE	
"Express Mail" Label No.	EV115518443US
Deposit Date	October 11, 2002
I hereby certify that this paper and the attachments herein are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington DC 20231.	
 Ronald C. Fedus Reg. No. 32,567	OCT 11 2002 Date

Enz-5(D8)(C2)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Dean Engelhardt et al.

Serial No.: 08/486,069

Filed: June 7, 1995

For: NUCLEIC ACID SEQUENCING PROCESSES
USING NON-RADIOACTIVE DETECTABLE
MODIFIED OR LABELED NUCLEOTIDES OR
NUCLEOTIDE ANALOGS, AND OTHER
PROCESSES FOR NUCLEIC ACID DETECTION
AND CHROMOSOMAL CHARACTERIZATION
USING SUCH NON-RADIOACTIVE DETECTABLE
MODIFIED OR LABELED NUCLEOTIDES OR
NUCLEOTIDE ANALOGS (As Previously Amended)

Group Art Unit: 1631

Ex'r: Ardin H. Marschel, Ph.D.

#86
Plunkett
10/22/02

527 Madison Avenue, 9th Floor
New York, New York 10022-4304
October 11, 2002

FILED BY EXPRESS MAIL

Director of Patents and Trademarks
Washington, D.C. 20231

**SEVENTH INFORMATION DISCLOSURE
STATEMENT UNDER 37 C.F.R. §§1.56 & 1.97-1.98**

Dear Sirs:

Pursuant to the provisions of 37 C.F.R. §§1.97-1.98, and in full compliance with their duty of disclosure under 37 C.F.R. §1.56, Applicants, through their attorney, are bringing the following five (5) sets of documents in the form of foreign publications and English translations to the attention of the U.S. Patent and Trademark Office and the Examiner handling their above-identified application:

Enz-5(D8)(C2)

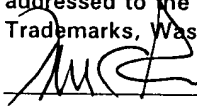
Dean L. Engelhardt et al.

Serial No.: 08/486,069

Filed : June 7, 1995

Page 2 [Seventh Information Disclosure Statement

Under 37 C.F.R. §§1.56 & 1.97-1.98 – October 11, 2002]

EXPRESS MAIL CERTIFICATE	
"Express Mail" Label No. EV115518443US	
Deposit Date	October 11, 2002
I hereby certify that this paper and the attachments herein are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington DC 20231.	
	OCT 11 2002
Ronald C. Fedus	Date
Reg. No. 32,567	

Dean L. Engelhardt et al.

Serial No.: 08/486,069

Filed : June 7, 1995

Page 3 [Seventh Information Disclosure Statement

Under 37 C.F.R. §§1.56 & 1.97-1.98 - October 11, 2002]

1. partial English translation of Kagakukai ed., "Fluorescence tagging"
~~Biochemistry Experiments Course 2, Nucleic Acid Chemistry III~~, pages 299-317
(1977) [cited but not provided as Exhibit 53 to September 19, 2001 4th
Supplemental IDS and provided in Applicants' October 9, 2001 Communication To
Transmit Documents Cited In Applicants' 4th Supplemental IDS];
2. Gilbert W., "DNA-sequenzierung und gon-struktur (Nobel-Vortrag)"
~~Angenwandte Chemie~~ 93:1037-1046 (1981) [cited but not provided as Exhibit 60
to 9/19/01 4th Supplemental IDS and provided in Applicants' October 9, 2001
Communication To Transmit Documents Cited In Applicants' 4th Supplemental
IDS];
3. Husimi, Y. "DNA Sequences," ~~Oyo Buturi~~ 51(12):1400 (1982) [cited but not
provided as Exhibit 68 to 9/19/01 4th Supplemental IDS and provided in
Applicants' October 9, 2001 Communication To Transmit Documents Cited In
Applicants' 4th Supplemental IDS];
4. Ulanov et al., "Electron microscopic determination of guanosine localization
in DNA," *Biophysics* 12:325-326 (1967) [cited but not provided as Exhibit 72 to
9/19/01 4th Supplemental IDS and provided in Applicants' October 9, 2001
Communication To Transmit Documents Cited In Applicants' 4th Supplemental
IDS]; and
5. Ulanov et al., "On The Problem Of Determination Of Base Sequences In
Nucleic Acids," *Biophysics* 12:326-330 (1967) [Not cited or provided previously].

Copies of the above-listed 5 documents are being submitted herewith as
Exhibits 1-5. A completed Form PTO-1449 is also attached as Exhibit 6.

This 7th IDS follows Applicants' September 12, 2002 Amendment Under 37
C.F.R. §1.115 (In Response To The March 12, 2002 Office Action). In that
Amendment (page 24), Applicants acknowledged the Examiner's remarks in the
March 12, 2002 Office Action (pages 12-13) concerning the need for English

Dean L. Engelhardt et al.

Serial No.: 08/486,069

Filed : June 7, 1995

Page 4 [Seventh Information Disclosure Statement

Under 37 C.F.R. §§1.56 & 1.97-1.98 – October 11, 2002]

translations of the foreign documents provided in their October 9, 2001 Communication. Applicants also indicated in their Amendment that English translations had been ordered for five foreign documents.¹

With respect to the first above-listed document (partial English translation of Kagakukai et al.) [Exhibit 1], Applicants' attorney sought to obtain from a number of different sources the original document cited in Smith et al., U.S. Patent No. 5,821,058. Thus far, attempts to obtain the original Kagakukai document have been unavailing, even from the Smith '058 Patent file wrapper in which the citation was first found. For purposes of this IDS, Applicants suggest that the document be cited as follows:

"partial English translation of Kagakukai ed., 'Fluorescence tagging' Biochemistry Experiments Course 2, Nucleic Acid Chemistry III, pages 299-317 (1977)."

In regard to the second above-listed document [Exhibit 2], three separate English translations are provided as Exhibits 2A, 2B and 2C, each of which were published in different sources.

The fifth and last above-listed document [Exhibit 5] came to the attention of Applicants' attorney while reviewing Ulanov et al. [Exhibit 4]. The title, "On The Problem Of Determination Of Base Sequences In Nucleic Acids," was thought to be of possible material value to the examination of the present application and is being included herewith as Exhibit 5 for the Examiner's consideration.

As indicated above, each of the first four above-listed foreign documents were cited but not provided in Applicants' September 19, 2001 Fourth Supplemental IDS. Subsequently, the original documents except for Kagakukai et

¹ Applicants note that a previously submitted publication, Douglass et al., ["Methods and instrumentation for fluorescence quantitation of proteins and DNA's in electrophoresis gels at the 1 ng level," Electrophoresis '78 N. Catsimpoolas, ed., pages 155-165 (1978) [Exhibit 59 to September 19, 2001 4th Supplemental IDS] was already in English when provided in their October 9, 2001 Communication. Thus, Douglass et al. is already of record and should have been considered in this application.

Dean L. Engelhardt et al.

Serial No.: 08/486,069

Filed : June 7, 1995

Page 5 [Seventh Information Disclosure Statement

Under 37 C.F.R. §§1.56 & 1.97-1.98 – October 11, 2002]

al. (Exhibit 1) were provided in Applicants' October 9, 2001 Communication To Transmit Documents Cited In Applicants' 4th Supplemental IDS.

By this voluntary citation of art, Applicants and their attorney are requesting that these 5 documents (Exhibits 1-5) be made of record if appropriate in the present application.

The above listing is not a representation that these documents constitute a complete or exhaustive listing, nor that the above listing necessarily includes the closest or most relevant references, nor are these documents necessarily a complete listing of all references known to Applicants or their attorneys. It is simply a voluntary citation of references made in good faith, which is not intended to serve in any way as a substitute for the Examiner's own searches.

In view of the general and specific features described and claimed in the present application, Applicants respectfully submit that the present invention is neither suggested nor disclosed by the documents listed above and, thus, patentably distinct thereover. Furthermore, Applicants do not believe, and do not submit, by the citation of these documents, that these documents, either by themselves or in combination with other documents, render the invention *prima facie* obvious under any of the duty of disclosure rules.

Applicants respectfully request that the Examiner make the above-submitted documents (Exhibits 1-5) of record in the instant application. Applicants further request that the Examiner consider these documents as any of them may relate, however remotely, to the present application.

This IDS is being filed in accordance with 37 C.F.R. §1.97(c), that is, after the mailing date of a first action on the merits, but before the mailing date of either a Final Action or a Notice of Allowance. The Patent and Trademark Office is hereby authorized to charge the \$180.00 fee set forth in §1.17(p) and any other

Dean L. Engelhardt et al.

Serial No.: 08/486,069

Filed : June 7, 1995

Page 6 [Seventh Information Disclosure Statement

Under 37 C.F.R. §§1.56 & 1.97-1.98 – October 11, 2002]

fees in connection with this IDS to Deposit Account No. 05-1135, or to credit any overpayment thereto.

Respectfully submitted,



Ronald C. Fedus

Registration No. 32,567

Attorney for Applicants

ENZO LIFE SCIENCES, INC.

(formerly Enzo Diagnostics, Inc.)

c/o Enzo Biochem, Inc.

527 Madison Avenue, 9th Floor

New York, New York 10022

Tel. (212) 583-01000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Dean L. Engelhardt et al.

Serial No. 08/486,069

Group Art Unit: 1631

Filed: June 7, 1995

Examiner: Ardin H. Marschel, Ph.D.

Title: NUCLEIC ACID SEQUENCING PROCESSES USING NON-RADIOACTIVE DETECTABLE MODIFIED OR LABELED NUCLEOTIDES OR NUCLEOTIDE ANALOGS, AND OTHER PROCESSES FOR NUCLEIC ACID DETECTION AND CHROMOSOMAL CHARACTERIZATION USING SUCH NON-RADIOACTIVE MODIFIED OR LABELED NUCLEOTIDES OR NUCLEOTIDE ANALOGS
(As Previously Amended)

TRANSMITTAL
SEVENTH INFORMATION DISCLOSURE STATEMENT

Director of Patents and Trademarks
Washington, D.C. 20231

Sir:

Transmitted herewith is a Seventh Information Disclosure Statement which is being filed in accordance with 37 C.F.R. §§ 1.56 and 1.97-1.98. The items listed on Form PTO-1449, a copy of which is enclosed, may be deemed to be pertinent to the above-identified application and are made of record to assist the Patent and Trademark Office in its examination of this application. The Examiner is respectfully requested to fully consider the items and to independently ascertain their teaching.

1. ☒ For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, an English language translation of that item or a portion thereof or a concise explanation of the relevance of that item is enclosed.
2. ☐ For each of the following items listed on the enclosed copy of form PTO-1449 that is not in the English language, a concise explanation of the relevance of that item is incorporated in the specification of the above-identified application.
3. ☐ Any copy of the items on the enclosed copy of Form PTO-1449 that is not enclosed with this Seventh Information Disclosure Statement was previously cited by or submitted to the Patent and Trademark Office in the prior ☐ Divisional or ☐ Continuation-In-Part application under 37 C.F.R. §1.60, U.S. Serial No.

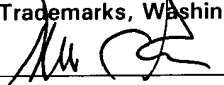
Dean L. Engelhardt et al.

Serial No.: 08/486,069

Filed: June 7, 1995

Page 2 [Transmittal -- Seventh Information Disclosure Statement]

-- October 11, 2002

EXPRESS MAIL CERTIFICATE	
"Express Mail" Label No.	EV115518443US
Deposit Date	October 11, 2002
I hereby certify that this paper and the attachments herein are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington DC 20231.	
	OCT 11 2002
Ronald C. Fedus	Date
Reg. No. 32,567	

Dean L. Engelhardt et al.

Serial No.: 08/486,069

Filed: June 7, 1995

Page 3 [Transmittal -- Seventh Information Disclosure Statement]

-- October 11, 2002

4. ☐ No fee is due under 37 C.F.R. §1.17(p) for this Seventh Information Disclosure Statement since it is being filed in compliance with:
- ☐ 37 C.F.R. §1.97(b)(1), within three months of the filing date of the above-identified application.
 - ☐ 37 C.F.R. §1.97(b)(2), within three months of the date of entry into the national stage as set forth in ?1.491 in an international application.
 - ☐ 37 C.F.R. §1.97(b)(3), before the mailing date of a first Office action on the merits.
5. ☐ No fee is due under 37 C.F.R. §1.17(p) for this Seventh Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a Notice of Allowance (where there has been no prior final action), and is accompanied by one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below.
6. ☒ A fee is due under 37 C.F.R. §1.17(p) for this Seventh Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a notice of allowance (where there has been no prior final action):
- ☐ A check in the amount of \$240.00 is enclosed in payment of the fee.
 - ☒ Charge the fee to Deposit Account No. 05-1135, Order No. ENZ-5(D8)(C2). A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
7. ☐ A fee is due under 37 C.F.R. §1.17(i)(1) for this Seventh Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(d), after the mailing date of a final action or a notice of allowance, whichever comes first, but before payment of the issue fee, and is accompanied by:

-- October 11, 2002

- a. one of the certification pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below; and
 - b. the attached petition requesting consideration of this Seventh Information Disclosure Statement; and
 - c. the fee due under 37 C.F.R. §1.17(i)(1) which is paid as set forth in paragraph 10 below.
8. ☐ A fee is due under 37 C.F.R. §1.17(i)(1) for this Seventh Information Disclosure Statement since it is being filed in compliance with:
- a. ☐ 37 C.F.R. §1.313(b)(3), after the issue fee has been paid and information cited in this Seventh Information Disclosure Statement may render at least one claim unpatentable and is accompanied by the attached Petition To Withdraw Application From Issue;
 - b. ☐ 37 C.F.R. §1.313(b)(5), after the issue fee has been paid and information cited in this Seventh Information Disclosure Statement is to be considered in a Continuation application upon abandonment of the instant application and is accompanied by the attached Petition To Withdraw Application From Issue.
 - c. ☐ The fee due under 37 C.F.R. §1.17(i)(1) is paid as set forth in paragraph 10 below.
9. ☐ I hereby certify that each item of information contained in this Seventh Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Seventh Information Disclosure Statement.
- ☐ I hereby certify that no item of information in the Seventh Information Disclosure Statement filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of this Seventh Information Disclosure Statement.
10. ☐ A check in the amount of \$130.00 is enclosed in payment of the fee due under 37 C.F.R. §1.17(i)(1).

Dean L. Engelhardt et al.

Serial No.: 08/486,069

Filed: June 7, 1995

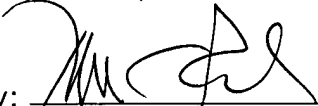
Page 5 [Transmittal -- Seventh Information Disclosure Statement]

-- October 11, 2002

[X] Charge the fee under 37 C.F.R. §1.17(i)(1) to Deposit Account No. 05-1135, Order No. Enz-5(D8)(C2). A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

[x] The Commissioner is hereby authorized to charge any additional fees which may be required for this Seventh Information Disclosure Statement, or credit any overpayment to Deposit Account No. 05-1135. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,

By: 
RONALD C. FEDUS
Registration No. 32,567
Attorney for Applicants

Dated: October 11, 2002

Mailing Address:

ENZO LIFE SCIENCES, INC.
(formerly Enzo Diagnostics, Inc.)
c/o Enzo Biochem, Inc.
227 Madison Avenue, 9th Floor
New York, New York 10022-4304
Telephone: (212) 583-0100
Telefax: (212) 583-0150

Enz-5(D8)(C2)